

There are  
No sed  
benchmarks  
in SCDM but  
if leaving in  
give title  
3 background  
Note: 118  
high Dged  
(seeds)  
was this  
collected w/  
SW sample?  
looks uncharacteristic for  
area.

TABLE 3  
Sediment Results

are only  
to show bkgd,  
upstream to  
downstream  
result to  
with other  
in flows  
inserted  
as needed in  
appropriate  
location dam  
flow path

Sample ID:	Location:	Superfund Chemical Data Matrix (SCDM)	Superfund Chemical Data Matrix (SCDM)	UASE030	UASE001	UASE002	UASE003	UASE004	UASE005	UASE006	UASE007	UASE008	UASE009
		RDSC (mg/kg)	CRSC (mg/kg)	MCL/MCLG (mg/kg)	(Background) (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Analyses													
Aluminum		-	-	47100	15700	6860	7030	8570	9570	8370	7030	13400	4940
Antimony		-	-	-	1.2 U	2.1 UJ	1.4 UJ	1.3 UJ	1.3 UJ	2.8 J	5 UJ	1.7 UJ	2.7 UJ
Arsenic		-	-	94.5	31.5 J+	45.3 J	34.1 J	5.9 J	20.3 J	11.6 J	50.2 J	33.3 J	15.2 J
Barium		-	-	282.6	94.2 J+	559 J	210 J	108 J	97.3	78.8	146	24.9 UJ	92.7
Beryllium		-	-	4.2	1.4 J+	1 UJ	0.72 U	1 J+	0.65 U	0.66 J+	0.95 U	2.5 U	1.1 J+
Cadmium		-	-	31.2	10.4 J	1 UJ	0.72 U	5.8 J	0.9	0.64 UJ	2.9	2.5 U	1.3 J
Calcium		-	-	5970	1990	1100	1010	2560	1530	1230	1420	2490 U	1660
Chromium		-	-	24	8	6.6	6.4	6.5	7	6.2 J	8.4	5 U	7.6 J
Cobalt		-	-	61.5	20.5	3.9 J	4.3 J	10.9 J	11.8	6.5	3.9	2.5 U	16.5
Copper		-	-	3720	1240 J+	48.7 J	53 J	119 J	86.5	65 J	279	28.1	209 J
Iron		-	-	213600	71200	78100	68800	20800	57600	34800	114000	238000	37300
Lead		-	-	4440	1480 J	459	322	612	726 J	145	5720 J	217 J	711
Magnesium		-	-	34500	11500	3030	4080	5610	6070	1460	913	8730	1370 U
Manganese		-	-	19800	6600	333	506	6750	1530	839 J	1340	336	4130 J
Nickel		-	-	35.1	11.7 J	3.4 J	4 J	8.2 J	4.4	4.2 J	3.8	1.3	8 J
Potassium		-	-	1926	642 J+	1700 J+	889 J+	745 J+	751 J+	902 J+	1560 J+	231 J+	825 U
Selenium		-	-	-	3 U	1.6 J	0.81 J	0.099 J	3.3 UJ	3.2 UJ	4.8 UJ	12.4 UJ	4.1 UJ
Silver		-	-	3.6	1.2 J	4.5 J+	2.5 J+	1.7 J+	0.64 UJ	12.1 J+	2.5 UJ	2.1 J	4 J
Sodium		-	-	1800	600 UJ	1040 U	723 U	641 U	62.3 J+	640 U	118 J+	44.5 J+	825 U
Thallium		-	-	1.32	0.44 J-	1 U	0.72 U	0.64 U	0.39 J+	0.64 UJ	0.6 J+	2.5 UJ	0.83 UJ
Vanadium		-	-	122.7	40.9	47.3	44.8	30.6	47.3	52.2	47.7	41.8	64.1
Zinc		-	-	4500	1500 J	205 J	199 J	1470 J	261 J	145 J-	815 J	269 J	289 J-

Double check values  
not calculated

Need SDs,  
esp when U in  
background sample

possible Bkgd?

Sample ID:	Location:	Superfund Chemical Data Matrix (SCDM)	Superfund Chemical Data Matrix (SCDM)	UASE030	UASE010	UASE011	UASE012	UASE013	UASE014	UASE015	UASE016	UASE017	UASE018
		RDSC (mg/kg)	CRSC (mg/kg)	MCL/MCLG (mg/kg)	(Background) (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Analyses													
Aluminum		-	-	47100	15700	9330	2020	10900	4520	3850	4670	8140	8100
Antimony		-	-	-	1.2 U	1.3 UJ	2.8 UJ	1.3 UJ	2.8 UJ	3 UJ	2.3 J	3.2 UJ	1.3 UJ
Arsenic		-	-	94.5	31.5 J+	26.2 J	36.7 J	17.3 J	20.5 J	24.5 J	23.2 J	57.5 J	17.7 J
Barium		-	-	282.6	94.2 J+	51.8	30.7	102	61.9	36.1	46.5	200	121
Beryllium		-	-	4.2	1.4 J+	0.64 UJ	1.4 UJ	0.63 U	1.4 UJ	1.5 UJ	1.1 UJ	1.6 UJ	0.63 U
Cadmium		-	-	31.2	10.4 J	0.64 UJ	0.11	0.63 U	1.4 UJ	1.5 UJ	2.4 J	1.6 UJ	0.63 U
Calcium		-	-	5970	1990	1710	1380 U	1890	1410 U	1500 U	1130	1940	1740
Chromium		-	-	24	8	9.1 J	5.1 J	8	4.3 J	6.1 J	4 J	11.9 J	6.9
Cobalt		-	-	61.5	20.5	4.3	2.8 U	10.4	6	3 U	2.2 U	23.7	13.2
Copper		-	-	3720	1240 J+	42.8 J	113 J	73.1	84 J	147 J	112 J	250 J	63.6
Iron		-	-	213600	71200	18200	397000	37100	203000	218000	442000	65400	38100
Lead		-	-	4440	1480 J	294	136	532 J	362	773	457	1460	379 J
Magnesium		-	-	34500	11500	8680	1380 U	5380	1410 U	1500 U	1120 U	2260	5830
Manganese		-	-	19800	6600	624 J	156 J	675	1910 J	489 J	239 J	2360 J	1420
Nickel		-	-	35.1	11.7 J	4.1 J	1.4 UJ	7.1	1.6 J	2 J	1.1 UJ	12.3 J	6.3
Potassium		-	-	1926	642 J+	638 U	1380 U	1000 J+	1410 U	1500 U	1120 U	1580 U	440 J+
Selenium		-	-	-	3 U	3.2 UJ	6.9 UJ	3.1 UJ	7.1 UJ	7.5 UJ	5.6 UJ	7.9 UJ	3.1 UJ
Silver		-	-	3.6	1.2 J	0.88 J	1.4 UJ	1.3 J+	2.3 J	8.5 J	3.9 J	1.6 UJ	1.3 J+
Sodium		-	-	1800	600 UJ	638 U	1380 U	99.3 J+	1410 U	1500 U	1120 U	1580 U	30.8 J+
Thallium		-	-	1.32	0.44 J-	0.64 UJ	1.4 UJ	0.35 J+	1.4 UJ	1.5 UJ	1.1 UJ	1.6 UJ	0.3 J+
Vanadium		-	-	122.7	40.9	29.1	27.8	49	29.7	34	31.7	46.3	32.2
Zinc		-	-	4500	1500 J	145 J-	44.1 J-	73.8 J	240 J-	465 J-	1040 J-	378 J-	184 J

for most part,  
these sed & appear ok - still dbl chk please



TABLE 3  
Sediment Results  
(continued)

Sample ID:	Superfund Chemical Data Matrix (SCDM)	Superfund Chemical Data Matrix (SCDM)		UASE030	UASE019	UASE020	UASE021	UASE022	UASE023	UASE024	UASE029	UASE032	UASE033
Location:	RDSC (mg/kg)	CRSC (mg/kg)	MCL/MCLG (mg/kg)	Lower Ross Basin Drainage upstream of Grand Mogul Mine (Background) (mg/kg)	Mogul Mine drainage (in wetland) (mg/kg)	Cement Creek upstream of Mogul Mine (mg/kg)	Cement Creek downstream of Mogul North Mine (mg/kg)	Mogul North Mine discharge (mg/kg)	Cement Creek upstream of Mogul North Mine and downstream of confluence with Lower Ross (mg/kg)	Cement Creek downstream of Queen Anne Mine and upstream of confluence with Lower Ross (mg/kg)	Animas River Below Silverton (mg/kg)	Animas River downstream of the confluence with Mineral Creek (mg/kg)	Mineral Creek upstream of the confluence with the Animas River (mg/kg)
Analytes	-	-	47100	15700	5960	12200	13600	6720	3020	11500	12300	3000	28200
Aluminum	-	-	-	1.2 U	1.6 UJ	1.4 UJ	1.3 U	6.8 U	1.7 J	1.7 U	1.6 UJ	1.3 UJ	3.5 UJ
Antimony	-	-	-	31.5 J+	62.5 J	36.8 J	25.8 J+	42.6 J+	45.6 J+	49.4 J+	27.3 J	14.2 J	26.7 J
Arsenic	-	-	94.5	94.2 J+	121	147	74.3 J+	119 J+	264 J+	205 J+	261 J	79.3 J	159
Barium	-	-	282.6	1.4 J+	0.8 U	1.4 J+	1.3 J+	3.4 UJ	1.3 J+	1.3 J+	0.89 J+	0.75 J+	1.7 UJ
Beryllium	-	-	4.2	10.4 J	1.4	7.4	6 J	3.4 UJ	6 J	7 J	2010	2050	1950
Cadmium	-	-	31.2	1990	804 U	1110	1310	3380 U	718 U	1280	5.6	6.9	5.1 J
Calcium	-	-	5970	8	8.5	9.6	7.1	19.7	6.2	8.2	12.3 J	11 J	18.6
Chromium	-	-	24	20.5	5.4	12.9	12.3	4.8	15.3	15.8	167 J	201 J	216 J
Cobalt	-	-	61.5	1240 J+	177	546	516 J+	303 J+	424 J+	294 J+	58100	26000	62200
Copper	-	-	3720	71200	116000	31900	37200	141000	5150	27100	734	187	210
Iron	-	-	213600	1480 J	546 J	779 J	481 J	668 J	2030 J	5670	4270	3730	2280
Lead	-	-	4440	11500	3260	5340	7200	3380 U	1090	5670	2710	1160	897 J
Magnesium	-	-	34500	1130	5130	4710	1180	7960	11500	11500	5.2 J	5.9 J	6 J
Manganese	-	-	19800	6600	4.5	6.9	10.3 J	5.9 J	7.7 J	7.8 J	1260 J+	874 U	1740 U
Nickel	-	-	35.1	11.7 J	4.5	6.9	10.3 J	5.9 J	7.7 J	7.8 J	1260 J+	874 U	1740 U
Potassium	-	-	1926	642 J+	842 J+	648 J+	3.3 U	17 U	3.6 U	4.3 U	2.8 J+	2.67 U	1.7 UJ
Selenium	-	-	-	3 U	4 UJ	3.5 UJ	27.1 J ☆	27.1 J ☆	11.8 J ☆	4 J ☆	814 U	674 U	1740 U
Silver	-	-	3.6	1.2 J	5.1 J+ ☆	2.8 J+	2 J	3380 U	718 UJ	855 UJ	0.81 U	3.67 U	1.7 UJ
Sodium	-	-	1800	600 UJ	65.3 J+	29.5 J+	664 UJ	0.31 J-	0.77	0.88	41.1	36.1	31.3
Thallium	-	-	1.32	0.44 J-	0.3 J+	0.4 J+	0.41 J-	20.8	27.8	38	447 J	289 J	339 J-
Vanadium	-	-	122.7	40.9	42.6	33.2	32.5	350 J	614 J	899 J			
Zinc	-	-	4500	1500 J	444 J	1990 J	651 J						

Sample ID:	Superfund Chemical Data Matrix (SCDM)	Superfund Chemical Data Matrix (SCDM)		UASE030	UASE034	UASE035	UASE036	UASE037	UASE039	UASE040	UASE041	UASE042	UASE043
Location:	RDSC (mg/kg)	CRSC (mg/kg)	MCL/MCLG (mg/kg)	Lower Ross Basin Drainage upstream of Grand Mogul Mine (Background) (mg/kg)	Animas River upstream of the confluence with Mineral Creek (mg/kg)	Cement Creek downstream of the Kendrick-Gelder Smelter (mg/kg)	Cement Creek upstream of the Kendrick-Gelder Smelter (mg/kg)	Cement Creek downstream of the Illinois Gulch drainage (mg/kg)	Cement Creek upstream of the confluence with Illinois Gulch drainage and downstream of Ohio Gulch drainage (mg/kg)	Ohio Gulch drainage (mg/kg)	Cement Creek upstream of the confluence with Ohio Gulch drainage (mg/kg)	Cement Creek downstream of the Anglo Saxon Mine drainage (mg/kg)	Anglo Saxon Mine drainage (mg/kg)
Analytes	-	-	47100	15700	11600	5900	7040	4890	5540	5240	8220	5710	5060
Aluminum	-	-	-	1.2 U	1.7 UJ	1.6 UJ	1.4 UJ	1.6 UJ	1.4 UJ	1.3 UJ	1.5 UJ	1.9 UJ	2.5 UJ
Antimony	-	-	-	31.5 J+	13.3 J	41.7 J	35.3 J	57 J	34 J	54.8 J	34.3 J	37.2 J	103 J
Arsenic	-	-	94.5	94.2 J+	123 J	424 J ☆	342 J ☆	317 J ☆	422 J ☆	582 J ☆	121 J	258 J	36.3 J
Barium	-	-	282.6	1.4 J+	0.87 U	0.78 U	0.68 U	0.82 U	0.71 U	0.64 U	0.74 U	0.93 U	10.3 J+ ☆
Beryllium	-	-	4.2	10.4 J	0.87 U	0.83 J	1.4 J	0.82 U	0.71 U	2.6 J	0.51	0.93 U	4.1 J
Cadmium	-	-	31.2	1990	1810	934	1040	822 U	735	644 U	1040	1040	4130
Calcium	-	-	5970	8	4.7	5.2	5.7	4.8	5.9	4.5	6.6	8.4	2.5 U
Chromium	-	-	24	20.5	5.4 J	3.8 J	4.8 J	3.6 J	3.1 J	4 J	5.5 J	4.4 J	17 J
Cobalt	-	-	61.5	1240 J+	91.4 J	42.7 J	98.6 J	41.8 J	29.8 J	40.4 J	55.2 J	59.7 J	110 J
Copper	-	-	3720	71200	44300	71700	62200	88900	56500	44400	94600	123000	860000 ☆
Iron	-	-	213600	1480 J	366	394	306	541	361	598	334	417	255
Lead	-	-	4440	11500	6090	2440	3760	2180	2810	2570	4550	2360	1240 U
Magnesium	-	-	34500	1130	5130	4710	1180	7960	11500	11500	5.2 J	5.9 J	6 J
Manganese	-	-	19800	6600	4.5	6.9	10.3 J	5.9 J	7.7 J	7.8 J	1260 J+	874 U	1740 U
Nickel	-	-	35.1	11.7 J	4.5	6.9	10.3 J	5.9 J	7.7 J	7.8 J	1260 J+	874 U	1740 U
Potassium	-	-	1926	642 J+	842 J+	648 J+	3.3 U	17 U	3.6 U	4.3 U	2.8 J+	2.67 U	1.7 UJ
Selenium	-	-	-	3 U	4 UJ	3.5 UJ	27.1 J ☆	27.1 J ☆	11.8 J ☆	4 J ☆	814 U	674 U	1740 U
Silver	-	-	3.6	1.2 J	5.1 J+ ☆	2.8 J+	2 J	3380 U	718 UJ	855 UJ	0.81 U	3.67 U	1.7 UJ
Sodium	-	-	1800	600 UJ	65.3 J+	29.5 J+	664 UJ	0.31 J-	0.77	0.88	41.1	36.1	31.3
Thallium	-	-	1.32	0.44 J-	0.3 J+	0.4 J+	0.41 J-	20.8	27.8	38	447 J	289 J	339 J-
Vanadium	-	-	122.7	40.9	42.6	33.2	32.5	350 J	614 J	899 J			
Zinc	-	-	4500	1500 J	444 J	1990 J	651 J						

is this  
Assoc. wetland?



TABLE 3  
Sediment Results  
(continued)

Sample ID:				UASE030	UASE044	UASE045	UASE046	UASE047	UASE049	UASE050	UASE054	UASE056	UASE058	UASE059
Location:	Superfund Chemical Data Matrix (SCDM)	Superfund Chemical Data Matrix (SCDM)		Lower Ross Basin Drainage upstream of Grand Mogul Mine	Cement Creek upstream of the Anglo Saxon Mine and downstream of Minnesota Gulch drainage	Minnesota Gulch drainage	Cement Creek upstream of the confluence with Minnesota Gulch drainage	Cement Creek downstream of the Elk Tunnel and Fairview Gulch	Cement Creek upstream of the confluence with Fairview Gulch and the Elk Tunnel discharge and downstream of Georgia Gulch	Cement Creek upstream of Georgia Gulch and downstream of the Mammoth Tunnel	Prospect Gulch drainage	Cement Creek downstream of the Dry Gulch drainage	Cement Creek upstream of the confluence with Dry Gulch drainage	Cement Creek at the toe of Grand Mogul Mine
Analytes	RDSC (mg/kg)	CRSC (mg/kg)	MCL/MCLG (mg/kg)	(Background) (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	-	-	47100	15700	8860	10400	5070	6160	7840	6640	3730	6730	5750	986
Antimony	-	-	-	1.2 U	1.3 UJ	1.4 UJ	3.8 UJ	1.6 UJ	1.3 UJ	1.6 UJ	1.3 UJ	2.2 UJ	2.7 UJ	23.3 J
Arsenic	-	-	94.5	31.5 J+	34 J	46.9 J	115 J ☆	24.3 J	37.7 J	34.7 J	58.9 J	20.3 J	35.6 J	969 J+ ☆
Barium	-	-	282.6	94.2 J+	191 J	314 J ☆	80.6 J	226 J	95.5 J	250 J	144	142	85.9	37.1 J+
Beryllium	-	-	4.2	1.4 J+	0.66 U	0.96 J+	1.9 U	0.78 U	0.64 U	0.81 U	0.63 UJ	1.1 UJ	1.4 UJ	3 UJ
Cadmium	-	-	31.2	10.4 J	2 J	0.68 U	1.9 U	0.78 U	17.5 J	2.7 J	0.77 J	1.1 UJ	2.7 J	3 UJ
Calcium	-	-	5970	1990	2020	1350	1900 U	867	1120	1050	627 U	1100 U	1370 U	2980 U
Chromium	-	-	24	8	7	7.8	6.2	6.9	7.9	9.9	4.8 J	6.4 J	8 J	11.3
Cobalt	-	-	61.5	20.5	5.5 J	14.8 J	2.1 J	2.9 J	9.3 J	6.4 J	4	3.2	4.7	3 UJ
Copper	-	-	3720	1240 J+	76.4 J	77.1 J	112 J	47.8 J	159 J	60 J	64.9 J	80.7 J	212 J	235 J+
Iron	-	-	213600	71200	67200	37000	341000 ☆	57100	33000	81600	53500	144000	266000 ☆	273000 ☆
Lead	-	-	4440	1480 J	361	342	1700	304	847	346	254	875	2050	1100 J
Magnesium	-	-	34500	11500	5080	3850	2130	2360	6800	3090	2030	2820	2370	2980 U
Manganese	-	-	19800	6600	804	1560	540	407	1200	1380	406 J	659 J	1300 J	304
Nickel	-	-	35.1	11.7 J	3.6 J	7.5 J	2.3 J	2.8 J	7.1 J	4.7 J	1.9 J	2.9 J	2.5 J	3 UJ
Potassium	-	-	1926	642 J+	933 J+	1310 J+	1900 U	1350 J+	636 U	1230 J+	627 U	1250 J+	1370 U	2980 U
Selenium	-	-	-	3 U	1.1 J	1.1 J	0.63 J	2 J	0.92 J	2	3.1 UJ	5.5 UJ	6.9 UJ	15 U
Silver	-	-	3.6	1.2 J	1.4 J+	1.5 J+	4.1 J+ ☆	1.9 J+	2.9 J+	1.7 J+	0.95 J	2.3 J	5 J ☆	13.2 J ☆
Sodium	-	-	1800	600 UJ	657 U	684 U	1900 U	782 U	636 U	813 U	627 U	1100 U	1370 U	2980 UJ ☆
Thallium	-	-	1.32	0.44 J-	0.66 U	0.75 J+	1.9 U	0.8 J+	0.64 U	0.9 J+	0.63 UJ	1.1 UJ	1.4 UJ	0.19 J-
Vanadium	-	-	122.7	40.9	45.2	48.6	96.9	56.3	65.9	72.2	36.5	62	37.2	57.1
Zinc	-	-	4500	1500 J	478 J	144 J	177 J	131 J	4910 J ☆	693 J	192 J-	206 J-	628 J	524 J

J The associated numerical value is an estimated quantity because quality control criteria were not met. Presence of the element is reliable.  
U The analyte was not detected at or above the CRDL.  
UJ The reported quantitation limit is estimated because Quality Control criteria were not met. Element may not be present the sample.  
J- The associated numerical value is an estimated quantity but the result may be biased low.  
D The analyte was identified in a sample at a secondary dilution factor  
☆ The analyte was detected at three times greater than the background concentration

Define acronyms and units

Collapsed  
Add - see p  
may be a  
Source  
Sample?



Handwritten notes: 'Should we keep columns?', 'Waste File/Source Soil', 'TABLE 4 Sample Results', 'Soil Pathway', 'CRSC', 'Define below', 'or RSCC and define below', 'Superfund Chemical Data Matrix (SCDM)', 'American Tunnel', 'Red and Bonita Mine', 'Mogul North Mine', 'Grand Mogul Mine', 'Grand Mogul Mine waste piles', 'Mogul Mine waste piles', 'Mogul Mine waste piles adjacent to shed', 'Mogul Mine waste piles - east side'.

Field Sample ID:	UASO001	UASO002	UASO003	UASO004	UASO005	UASO006	UASO007	UASO008	UASO009	UASO010	UASO011	UASO012	UASO013	UASO014
Location:	American Tunnel	American Tunnel	Red and Bonita Mine - top pile	Red and Bonita Mine - middle pile	Red and Bonita Mine - bottom pile	Mogul North Mine waste pile	Grand Mogul stope - west side	Grand Mogul stope - east side	Grand Mogul Mine waste piles - east side	Grand Mogul Mine waste piles - center	Grand Mogul Mine waste piles - west side	Mogul Mine waste piles - west side	Mogul Mine waste piles - adjacent to shed	Mogul Mine waste piles - east side
Analytes	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	13900	12900	8780	1470	2260	1130	1450	2020	11200	665	13000	906	3270	19500
Antimony	1.3 UJ	1.2 UJ	1.8 J	1.3 U	12 J	13.5 J	11.7 J	1.1 U	1.1 U	12.2 J	1.1 U	1.1 U	3.6 J	1.2 U
Arsenic	23 J	13.5 J	9.1 J+	15.7 J+	29.3 J+	34.9 J+	38.6 J+	90.2 J+	96.8 J+	55.2 J+	32.8 J+	13.6 J+	37.7 J+	31.9 J+
Barium	5500	113	105 J+	18.7 J+	68.3 J+	83.8 J+	97.2 J+	72.1 J+	34.9 J+	81.3 J+	46.1 J+	37.1 J+	68.4 J+	154 J+
Beryllium	160	0.64 UJ	0.6 UJ	0.65 UJ	0.78 UJ	0.56 UJ	0.55 UJ	0.57 UJ	0.55 UJ	0.54 UJ	0.54 UJ	0.55 UJ	0.55 UJ	0.79 J+
Cadmium	39	9.6 J	0.6 UJ	0.63 J	35.4 J	5 J	7.6 J	1.1 J	0.55 UJ	40 J	0.7 J	0.55 UJ	9 J	3.7 J
Calcium	5910	2080	1780	648 U	775 U	563 U	551 U	807	1360	535 U	2030	554 U	547 U	1540
Chromium	230	8.4 J	10 J	4.9	1.8	2.2	1.1 U	2.3	11.9	1.1 U	10	1.1 U	2.7	9.9
Cobalt	8	6.8	1.3	1	0.78 U	0.56 U	0.55 U	0.88	5.5	0.54 U	4.6	0.55 U	1.5	21.4
Copper	244 J	40.6 J	195 J+	104 J+	286 J+	211 J+	471 J+	111 J+	47.1 J+	4600 J+	33.1 J+	63.1 J+	285 J+	162 J+
Iron	47800	36900	102000	150000	308000	8170	16900	21500	36000	22200	25200	7700	46300	55900
Lead	1820	241	6440 J	1850 J	5080 J	3880 J	4920 J	4510 J	1030 J	15500 J	2260 J	1050 J	3170 J	1070 J
Magnesium	11200	10700	5600	648 U	775 U	563 U	551 U	950	11100	535 U	12700	554 U	1920	9940
Manganese	11000	1180 J	796 J	452	630	423	122	852	1620	177	3280	135	433	5570
Nickel	1600	5.8 J	6.6 J	2.3 J	1.3 J	0.78 UJ	0.55 UJ	0.74 J	5.3 J	0.54 UJ	5.3 J	0.55 UJ	1.4 J	9.5 J
Potassium	1070 J+	1030 J+	790 J	648 U	775 U	714 J+	1240 J+	1460 J+	872 J+	1200 J+	671 J+	961 J+	769 J+	1090 J+
Selenium	390	3.2 UJ	3 UJ	3 U	3.2 U	2.8 U	2.8 U	2.8 U	2.8 U	3.4	2.7 U	2.8 U	2.7 U	3 U
Silver	390	5.4 J	1.3 J	103 J	10.4 J	27.5 J	34.6 J	54 J	8.4 J	113 J	4.6 J	6.9 J	22.9 J	2.7 J
Sodium	640 U	605 U	604 UJ	648 U	775 U	563 UJ	551 UJ	569 UJ	552 UJ	535 UJ	541 UJ	554 UJ	547 UJ	597 UJ
Thallium	0.64 UJ	0.6 UJ	0.5	0.23 J-	0.1 J-	0.61	0.85	1.2	0.36 J-	0.73	0.38 J-	0.43 J-	0.37 J-	0.56
Vanadium	550	53.6	65.3	26	23.7	49.7	7.8	12	17.5	62.1	60.8	4.9	15.4	47.5
Zinc	23000	2610 J-	102 J-	167 J	265 J	11300 J	1400 J	2100 J	319 J	187 J	10400 J	210 J	140 J	498 J

J The associated numerical value is an estimated quantity because quality control criteria were not met. Presence of the element is reliable.  
U The analyte was not detected at or above the CRDL.  
UJ The reported quantitation limit is estimated because Quality Control criteria were not met. Element may not be present the sample.  
J- The associated numerical value is an estimated quantity but the result may be biased low.  
J+ The associated numerical value is an estimated quantity but the result may be biased high.  
[] The associated numerical value was detected below the CRDL, but greater than the method detection limit and is therefore an estimate (qualified by laboratory).

Possible Data Gap: Background Soil to account for metals-potential occurring in mineral region may not be needed

define acronyms, e.g. SCDM CRSC mg/kg

\* for comparison only

Waste pile samples contain Al, As, Ba, Cd, Ca, Co, Cr, Cu, Fe, Pb, Mg, Mn, Ni, K, Ag, Th, V, Zn